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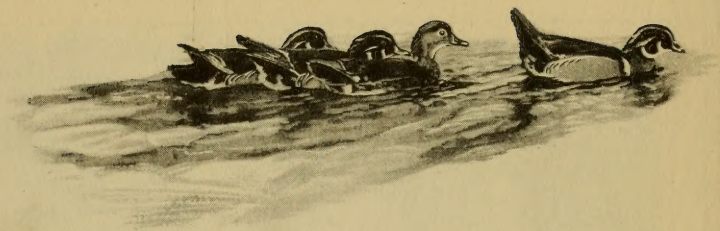
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IMPORTANT AMERICAN GAME BIRDS



Charles De Feo





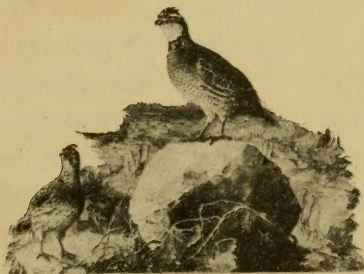
SCAUP OR BROAD-BILL

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IMPORTANT AMERICAN
GAME BIRDS
THEIR RANGES, HABITS
AND THE HUNTING

COMPILED BY
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ILLUSTRATIONS BY
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IMPORTANT AMERICAN GAME BIRDS THEIR RANGES, HABITS AND THE HUNTING



TO AMERICAN GAME BIRD SHOOTERS: No subject is of greater interest to the shooter than the appearance and habits of the game birds of this country, their environments, and the methods and skill required in hunting them.

To provide accurate illustrations of the leading varieties, we were fortunate in securing the services of Lynn Bogue Hunt, an experienced hunter and a painter of game birds, unsurpassed for faithful attention to the details that mean so much to the sportsman.

The beautiful reproductions of Mr. Hunt's originals are adequately and artistically supplemented by the authoritative text of Edward Howe Forbush, State Ornithologist of Massachusetts.

It is our belief that the sportsmen of America will treasure this book as a standard for judging the trophies of the field and as a guide for hunting varieties with which they lack previous experience, and as a pleasurable companion for the off season; one that will revive memories of happy hours in the field and create pleasurable anticipation of future hunting days.

The tabulation of game loads on page 56 is based on the practice of hunters experienced in the respective varieties covered, and can be relied upon to meet the average conditions and requirements.

We will be glad to receive inquiries and suggestions from any of our friends to the end that future editions of this book may always represent the best practice among American shooters.

E. I. DU PONT DE NEMOURS & COMPANY
WILMINGTON, DELAWARE

IMPORTANT · AMERICAN · GAME · BIRDS

Anas platyrhynchos MALLARD

Great is the mallard, the chief duck of the world. It is the most cosmopolitan of all ducks either wild or tame. In the wild state it inhabits the greater part of the earth. It is readily amenable to domestication, is the progenitor of most domesticated ducks, and its offspring have followed settlement and civilization into every land. In its albino form, the Pekin duck, it is the chief revenue producer in many a great modern poultry plant in the United States, and has become an important food supply in the Chinese Empire. It is the principal and most reliable water fowl for the thousands of game preserves in Europe and America, and its importance and value constantly increase.

In North America it breeds over most of Alaska and the western British possessions, east to Hudson Bay, and in Greenland, also south to Lower California, southern New Mexico, Kansas, Missouri, southern Indiana and Maryland (rarely). It winters from the Aleutian Islands, central Alaska, central Montana, Wyoming, Nebraska, southern Wisconsin, northern Indiana, Ohio, Maryland and Nova Scotia (rarely), south to Mexico, the Lesser Antilles and Panama. It is casual in Bermuda and Hawaii.

The mallard is, perhaps, still the most numerous duck in the great west, but it is uncommon or rare in New England and grows more numerous to the southward. It is a noisy bird, a strong swimmer, swift in flight and so hardy that some remain in swift running unfrozen streams in Alaska all winter. It uses due care for its own safety, but hardly develops such superlative caution as is shown by the black duck. It is a surface feeder, like most river ducks, and feeds by dabbling, or by thrusting its head under water, but can dive at need.

The mallard comes well to decoys, especially if one or two noisy live birds are tethered with the "blocks." As mallards come in over decoys they afford great sport to the experienced, expert sportsman, and in overhead pass shooting they will try his skill to the utmost. He who has no live decoys may attract the attention of passing birds by means of a duck call, but it must be skillfully used.

Anas rubripes BLACK DUCK

The black duck is the chief surface-feeding duck of the northeast. In the west, where its place is taken largely by the mallard, it is called the "black mallard" in distinction from the "gray mallard." It is a good example of the survival of the fittest, and because of its ability to take care of itself when given protection in spring it still exists in considerable numbers in regions where other fresh-water ducks have become rare.

This bird ranges over eastern North America. It breeds from central Keewatin and northern Ungava south to southern Wisconsin, northern Indiana, and southern Maryland. Apparently it is extending its breeding range westward. In the Gulf States its place is taken in the breeding season by those closely allied resident dusky ducks, the Florida duck and the mottled duck, which in the field it is difficult to distinguish from the black duck. The resident black duck of Mexico is *Anas diazi*. The black duck winters from Nova Scotia south to southern Louisiana and Colorado, and in migration goes west to Nebraska and Kansas.

The black duck originally was a daylight feeder, and still feeds in daylight where it is undisturbed by the hunter; but persecution has taught this and other ducks to seek safety on lake or ocean during the day, particularly in the shooting season, and to resort after sunset to small ponds and marshes where they feed. The black duck, like the mallard, will breed almost anywhere, if it can secure freedom from persecution. It naturally nests near water, but will go half a mile or more from water and



MALLARD

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nest under a bush in a dry pasture. It will breed on a little island in a pond in a city park or in the sloughs of the Labrador wilderness, and will feed with equal facility on wild rice on an inland river, or on shell-fish on the tide flats near the sea. The little ones seek the water soon after they leave the shell, and there they swim about, usually in shallow water at first, and close to or within the cover of sedge and water plants. When a dog or fox scents the little family and rushes to seize them, the watchful mother throws herself in his way, fluttering like a crippled bird, and thus leads him off a long distance, while the little ones submerge and steal away to the thickest cover.

The black duck's sight and hearing are perfect. Some ducks will not notice a man if he keeps still, but it is hard to deceive the black duck in that way. One should be well hidden, and it is difficult to creep up on black ducks down wind, not because of the sense of smell, which is not acute, but because of their perfect hearing. The wind carries the sound of approach to their ears. In New England, black ducks are now so shy that it is almost impossible to get much shooting at the old birds unless one has good cover and a large flock of well trained live decoys. Late in the season, when ponds and rivers freeze, good shooting may be had at open spring holes, as this bird must have fresh water to drink; but in such weather black ducks can find so little food that they are starving and soon become unfit for the table.

Chaulelasmus streperus GADWALL OR GRAY DUCK

The gadwall is nearly cosmopolitan. It is distributed over most of the Northern Hemisphere and in migration visits the greater part of the world, but it appears mainly in small parties or in company with other species. In North America it may have bred formerly over a large part of the continent, as there is a record for Ontario and one for Anticosti, but now it is believed to breed mainly from southern British Columbia, central Alberta, and central Keewatin, south to southern California, southern Colorado, northern Nebraska and southern Wisconsin. In this region it breeds commonly from the Rocky Mountains to the Pacific. Its chief winter home is in the lower Mississippi Valley, but it winters as far north as southern British Columbia, Arizona, Arkansas, southern Illinois and North Carolina, and south to southern Lower California, central Mexico and Florida. In migration it is rare east of the Mississippi and north of Virginia, but reaches Newfoundland and is accidental in Bermuda, Cuba and Jamaica.

The gadwall well merits the name "gray duck" so often given by gunners to this species, and also to the females and young of other ducks. It has a white wing-patch such as is shown by no other fresh-water duck, and traces of this may be found even on the young of the year. This serves as a distinguishing mark, though often hidden by the feathers when the bird is sitting on the water. The females and young somewhat resemble in appearance those of the mallard but are smaller. The gadwall is a swift flyer and in the air resembles the bald-pate, and though it is one of the fresh-water or so-called surface-feeding ducks it is a good diver.

Sometimes a large flock of bald-pates is accompanied by a few gadwalls, as this species does not often flock by itself. Therefore no special directions can be given for hunting it, as most shooting of gadwalls is incidental to the pursuit of other more common ducks. It gets much of its living along the shores of ponds and rivers, concealing itself in the grasses and other rank vegetation on or near the shore, and frequently may be approached when thus feeding under cover. If it discovers the hunter it is likely to swim out into open water and fly rather than attempt to hide.



PINTAIL

See page 14

BLACK DUCK

See page 6

BALD-PATE

See page 10

Mareca americana

BALD-PATE OR AMERICAN WIDGEON

breed somewhere in the great "Fur Countries," but the bird commonly called widgeon here is the bald-pate or American widgeon.

This bird ranges over North America, breeds from northwestern Alaska east through Mackenzie and central Keewatin to the west coast of Hudson Bay, south to Oregon and Nevada, and east to Kansas, southern Wisconsin and northern Indiana. It winters from southern British Columbia, Arizona, southern Illinois, Maryland and Delaware (rarely to Massachusetts), south to southern Lower California, Costa Rica and the Antilles. It is rare in migration to northern Quebec, Ontario and Newfoundland, and has been recorded from Hawaii, Bermuda and Europe. In winter it is common on the coast, from Chesapeake Bay to the Carolinas but less common or rare both north and south of that region.

The bald-pate, when taken under right conditions in the east well repays the sportsman for his trouble, as it is one of the best of ducks for the table. In autumn it frequents the marshes where wild rice and wild oats grow, and gets into fine condition when feeding on these nutritious seeds. In the far west, where it takes other food, it is less palatable. It is a poor diver, but feeds on wild celery, and is said to obtain this plant by robbing the canvas-back and redhead. However this may be, it surely robs the simple coot, which is an excellent diver. Where undisturbed the bald-pate feeds in daylight, but where much hunted it spends the day dozing in open water or upon isolated sandbars and feeds mainly at night. It is fond of grain, and would make an excellent bird for the game preserve.

Gunners concealed in boats in the wild rice attract these birds by means of live decoys, and sometimes succeed in killing the bag limit. In river and lake gunning a good dog trained to retrieve the birds is a great help, especially where the shooting is done from the shore. In a boat in cold weather a wet dog climbing in and out is likely to be an uncomfortable companion. When bald-pates and pintails are flying together the combination increases their suspicion and alarm, but bald-pates alone may be attracted by a good imitation of their whistle.

Nettion carolinense

GREEN-WINGED TEAL

This smart little duck has a wider breeding range than the blue-winged teal (see page 12), but is hardier and does not go so far south. It ranges over North America, breeding from the Aleutian Islands, northwestern Alaska, northern Mackenzie, central Keewatin, northern Ungava and Newfoundland, south to central California, northern New Mexico, northern Nebraska, northern Illinois, southern Ontario, Quebec and New Brunswick. It winters from the Aleutian Islands, British Columbia, Nevada, southern Nebraska, northern Indiana, western New York and Massachusetts (casually to Nova Scotia), south to southern Lower California, the Antilles and Honduras.

The green-winged teal likes to wade in shallow water near the edge of pond or marsh, among the little sandpipers, and dabble in search of food. In such localities it prefers to feed by day, and thus becomes the target of the hunter, who creeps after it unawares. Many are taken in this way, for they are not as wild or shy as most of the larger surface-feeding ducks. But this teal is so prolific, and so swift on the wing, that it is likely to offer grand sport in the west for many years. Often the flock



GADWALL OR GRAY DUCK

See page 8

SHOVELLER OR SPOONBILL

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flies in very close order, and then there is a chance to make a "killing," but at the first movement of the sportsman the bunch is likely to scatter widely, and the man who can then get a bird with each barrel is no laggard.

Teal come well to decoys, and although they fly swiftly they frequent small weedy streams, ditches, marshes and little sloughs or pond holes, and gather into close flocks when alarmed, so that many may be killed with one shot as they sit on the water. The green wing-patch or speculum often is entirely concealed as the birds sit, and it is never as conspicuous as is the blue upper wing of the blue-winged teal. When this teal has been feeding on wild rice or wild oats it is considered a great table delicacy. It should be raised in large numbers on game preserves.

Querquedula discors BLUE-WINGED TEAL

This handsome, favorite little duck ranges over most of North and South America. It is not a bird of Arctic regions, but breeds from central British Columbia, Great Slave Lake, central Ungava and Newfoundland, south to central Oregon, northern Nevada, northern New Mexico, central Missouri, southern Indiana, northern Ohio, western New York, Rhode Island and Maine. It has been reported recently as breeding in protected regions in New Jersey, North Carolina and Louisiana, and with absolute protection in spring might nest in suitable localities over a large part of the United States. It winters from British Columbia, Arizona and the middle Atlantic States, south through the Antilles to Brazil and Chile. It is accidental in Bermuda and Europe.

This teal is a duck of the fresh waters, a surface-feeder, and alights in shallow lakelets and sloughs in the margins of slow-flowing rivers and mud-bottomed ponds where the waterlily, the arrowhead and the pickerel weed grow. In the west it frequents prairie sloughs, and in the south goes to swamps and overflowed savannas. When coming in to feed, the flock sweeps back and forth along the river shore, often at tremendous speed, turning from side to side in the air, first showing the light under parts, and then the broad blue wing-patches as it ranges up and down spying out the land-fall; then when satisfied that all is safe they slant downward into some inlet or marshy pool and quickly come to rest. Autumnal migration begins either in August or early September, and then the teal pass swiftly through the northern States seeking their winter homes. Now they frequent streams where wild rice grows, and while feeding on the seed speedily grow sleek and fat and in the best condition for the table.

The blue-wings are naturally tame and unsuspicious birds. Formerly in Massachusetts they mingled with the domestic ducks of the farm-yard. As they frequent small ponds and streams they may be easily shot. Many are killed by boys stealing through the grass. In the south men on horseback ride from pond to pond to shoot teal, and it is easy to kill them on savannas of the south. This teal is now well protected in those Northern States where the shooting season opens in October, as most individuals of the species have moved south before that time.

Spatula clypeata SHOVELLER OR SPOONBILL

The shoveller is unique. The male is a handsome bird, but with a long, broad and rather ugly bill. Audubon considered the shoveller superior to the canvas-back as a table duck, and experts agree that it ranks high as a delicacy.



WOOD DUCK

See page 16

GREEN-WINGED TEAL

See page 10

BLUE-WINGED TEAL

See page 12

This duck ranges over most of the Northern Hemisphere. It nests throughout much of its range in the United States except in the east. In North America it breeds from northwestern Alaska, northwestern Mackenzie and southern Keewatin, south to southern California, central New Mexico, northern Texas, Missouri, Indiana and southern Michigan. It winters from southwestern British Columbia, Arizona, New Mexico, southern Missouri, southern Illinois, Maryland and Delaware and south to the Antilles, Colombia and Hawaii. It migrates along the Atlantic Coast to Newfoundland and occasionally to Bermuda. On the Atlantic seaboard it seems to be more common in the Carolinas in winter than elsewhere.

This bird likes to feed in small, muddy ponds, where it sifts the mud through its broad, lamellated bill and thus sorts out its food, which consists in part of leeches, fish fry or small fish, earthworms, insects and many aquatic grasses, seeds and bulbs. It resembles the blue-winged teal somewhat in appearance, but does not fly as swiftly as the teal. It often progresses with a vacillating, hovering motion, as if it were undecided regarding its destination. It is not very abundant and usually is seen in small companies or flocks. It quacks a little like the green-winged teal. Along the coast it seems to go to the salt water mainly as a refuge from the gunner, but prefers its favorite little muddy pond holes. Thus it is not a difficult bird to shoot, as the gunner can creep up while it is engaged in feeding.

The shoveller often falls a victim to the most primitive form of duck hunting, that of wading through the marshes. This can be practised to advantage in marshes with a rather hard bottom, where early in the season shovellers and other ducks and coots lie concealed in little pools, springing into the air when the gunner arrives within a few yards of them. In such work a good dog to retrieve the birds is a valuable help. Wading the marsh ranks with creeping up on ducks through mud and slime, as among the least genteel methods of duck hunting.

Dafila acuta The pintail, or sprigtail, a large fresh-water duck of elegant shape and handsome plumage, may be recognized by its long, slender neck and its longish, pointed tail.

PINTAIL

It ranges over a large part of the world, including Europe, Asia and northern Africa. In America it breeds on the Arctic coast from Alaska to Keewatin, to the west coast of Hudson Bay and James Bay, and south to southern California, Missouri, Kansas, southern Colorado, northern Nebraska, northern Iowa and northern Illinois. It winters from southwestern British Columbia, Nevada, Arizona, southern Missouri, southern Wisconsin, southern Ohio and Delaware, south to Porto Rico, Panama and Hawaii. It migrates sparingly on the Atlantic coast north to Newfoundland, Ungava and Greenland. It is largely a bird of the west. It is rather rare in the northeastern States, appearing there mainly in spring, but is common in winter in the coast States from North Carolina to Florida and numerous in the Gulf States. It begins to move south late in August or early in September, but the main flight moves in October.

Pintails do not quack so loudly or so much as the mallard or the black duck, but converse in low chattering notes, now and then uttering a subdued whistle. Usually they seem to be very quiet, but I have known them to be noisy on a moonlit night in Florida. They feed much on succulent water plants, which they find in small, stagnant, marshy ponds near the Atlantic coast. They also frequent broad, fresh waters and overflows, particularly in the west. They like berries, grain and wild rice, and when feeding on these they are at their best. Grain fields, meadows and wet spots in the prairies attract them.

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CANVAS-BACK

See page 18

REDHEAD

See page 16

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As the pintail is a shy duck and usually flies high, and inspects carefully any place of which it has suspicions, the sportsman should be well concealed. Many pintails have been killed in the Middle West on "passes" or ridges between two marshes, or between some water where the ducks rest and some marshy feeding ground. The gunner conceals himself on the ridge and shoots the birds as they "trade" or fly past. They are then under full headway, and their speed will try the skill of the best wing shot.

Aix sponsa WOOD DUCK

This is the loveliest waterfowl that the world can produce. Even the celebrated Mandarin duck of China pales in comparison with its regal beauty. Linnaeus named it *sponsa* which, freely translated, means "dressed in bridal vesture"; but the bride in this case is the groom, as the male displays the "bridal" plumage.

The wood duck or summer duck breeds and lives mainly within the United States, and, therefore the people of this country can exterminate it or preserve it as they will. It breeds from southern British Columbia, central Saskatchewan, northern Ontario, New Brunswick and Nova Scotia, south to central California, on the Gulf coast to Florida, and in Cuba. It winters from southern British Columbia, Kansas, Illinois, Indiana, Pennsylvania, and New Jersey, south to southern California and Florida. It is accidental in Bermuda, Mexico, Jamaica and Europe.

This beautiful duck is as much a wood bird as was the passenger pigeon. It nests in hollow trees, sometimes at a long distance from water, and flies to its nest as easily, gracefully and swiftly as the pigeon, turning and twisting in flight to avoid the branches. Superior in this way to the woodcock, or ruffed grouse, it flies as directly into the nest-hole as an owl, striking on its breast-feathers and feet. Wherever hollow trees in the woods have become scarce it will accept a hollow apple tree or an elm by a farmhouse door or even enter a projecting stovepipe. Unlike most ducks it alights freely on trees and roosts there. It seems to prefer wooded swamps, small streams, and ponds surrounded by woods, and rarely is seen in salt water. What finer picture presents itself to the sportsman than the wood duck on its natal stream. Embowered in its native forest, floating proudly, light as thistle down, upon the limpid flood, resplendent with far more than the tints of the rainbow, it glides along like a little barge decked with rare gems of the Orient. It is now (1916) protected until 1918, at all times, by law under the Federal regulations, and as it may be bred on preserves and responds readily to protection it should not be difficult to make it numerous in the land.

Marila americana REDHEAD

This duck is somewhat like the canvas-back (see page 18)—so like indeed, that it is sold often in the market under the name of canvas-back, and when well fed upon wild celery it rivals that bird upon the table. It easily is distinguished, however, by its smaller size, higher forehead, shorter bill, and the darker color of its back.

The redhead is a North American species closely resembling the pochard of the Old World. It breeds from British Columbia and the south central regions of the Canadian Northwest to James Bay and south to southern California, Utah, southern South Dakota, southern Minnesota, and southern Wisconsin. It winters from southern British Columbia, Utah, New Mexico, Kansas, Illinois, Maryland, Delaware, and Massachusetts, south to southern Lower California, central Mexico and Florida. It migrates nearly the length of both the Atlantic and Pacific coasts of the United States, and has been



GOLDEN-EYE OR WHISTLER

See page 20

WHITE-WINGED SCOTER

See page 22

taken casually in Jamaica and Alaska. Formerly this species bred in great numbers in the north central States.

In habits it somewhat resembles the broad-bill (see page 20). It decoys nicely, and when about to alight to the "stools" the birds often crowd together, offering an opportunity to kill two or more with the same shot. The redhead, like the scaup, is so inquisitive that sometimes when a large flock of either or both species has drifted inshore a concealed gunner with a small dog may entice them within close range by making the dog run and play upon the shore. Canvas-back and scaups were often similarly tolled in the good old days, but this stratagem does not succeed so well as formerly and is not considered sportsmanlike. The redhead, like the canvas-back, spends much time along the Atlantic coast in "trading" or flying back and forth from pond to pond and from bay to sound either for pleasure or to change its feeding ground.

The best weather for shooting ducks, particularly on the coast, is dark and stormy. Then the birds fly low, and often are driven in from the broad waters outside to the calmer, smaller waters where the sportsman lies hidden. Blinds are made on points or islands, concealing seats on which the sportsmen, accompanied by their faithful dogs, comfortably await the birds that may be attracted by the decoys. When the weather is mild and the winds are stilled, artificial decoys have no motion and sometimes fail to deceive the ducks; but if a pair of live decoys be added, especially if they are good callers, the chances for sport will be much increased.

Marila valisineria CANVAS-BACK

The canvas-back is the king of ducks—the duck that made Chesapeake Bay famous. It is ranked by the epicure above the terrapin and is considered a greater luxury than "quail on toast," but its flesh is at its best only when it has been feeding on wild celery or upon the wapato, a bulb-like root which it eats in the far west.

This is an American species. It breeds from central British Columbia, Alaska, Great Slave Lake, and southwestern Keewatin, south to Oregon, Nevada, Colorado, Nebraska, and Minnesota. It winters from southern British Columbia, Nevada, Colorado, Illinois, Pennsylvania, and western New York, south to central Mexico, the Gulf coast, and Florida. It is casual in the Antilles, Bermuda, and Guatemala, and migrates rarely to Nova Scotia and New Brunswick. Formerly, great numbers of canvas-backs bred in the United States.

The canvas-back is a hardy bird, and reaches the United States on its autumnal migration late in October or early in November. Many remain in the region of the Great Lakes until driven out by ice. A few are found on or near the New England coast or on Long Island, but the great majority move to the southward. On the Atlantic coast, Chesapeake Bay, formerly the great feeding ground of the canvas-back, has been superseded largely by the shallow, broad waters of Currituck, Pamlico, Core, and Albemarle. This duck has learned much by constant persecution, and now is shy and suspicious. Much of its time is spent in broad waters, far from shore, where it rests or feeds. On the feeding grounds, canvas-backs constantly dive and come up from the bottom with food in their bills.

At morning and evening the flocks amuse themselves by "trading" or flying back and forth, high in air, beyond the reach of ordinary shot. They often come well to decoys, especially in dull or rainy



WHITE-FRONTED GOOSE GREATER SNOW GOOSE CANADA GOOSE

See page 24 for more information. See page 24 for more information. See page 26

weather when the wind blows hard. Where they are shy a few live decoys, set ahead of the wooden blocks, should be used. Canvas-backs will "stool" to live black ducks or to live Canada geese, and any gunner who can imitate the note of a canvas-back will increase his chances for a shot. This is one of the swiftest of ducks, and in shooting at over-head or fast crossing birds the three following rules given by Doctor Grinnell should be observed. (1) hold ahead! (2) hold farther ahead! (3) hold still farther ahead! Late in the season when sudden cold congeals the surface many canvas-backs may be taken, if one can get near a hole in the ice where they feed. When the ice first comes they are in good condition, and are likely to keep in fair condition for a time because of their skill in diving, when non-divers like the black duck will sit on the ice and starve.

Marila marila SCAUP OR BROAD-BILL

The scaup, commonly known in various parts of North America as the broad-bill, blue-bill, black-head, etc., is the larger of two species much alike in plumage. It is a more northern bird than the lesser scaup and more hardy, wintering mainly farther north than its smaller relative.

It ranges over the northern part of the world, south of the Arctic regions. In North America it breeds principally in the northwest, from the Aleutian Islands, northwestern Alaska, Great Slave Lake, and central Keewatin, south to southeastern British Columbia and northern North Dakota. It has bred casually east to the Magdalen Islands. It winters from Maine to Florida and the Bahamas, and from the Aleutian Islands, Nevada, Colorado and Lake Ontario south to southern California, southern New Mexico and southern Texas. It is rare in migration in Ungava, Newfoundland and Nova Scotia.

This species is so hardy that many individuals remain in the lakes of the northern interior until the waters are locked in ice, when the ducks must necessarily fly south or to the nearest salt water. Thus if the autumn in the north is mild, some of these ducks fail to appear on the Atlantic Coast until the shooting season is nearly past, but about the middle of October flocks are met with in Massachusetts and Connecticut, and from southern New England to Chesapeake Bay they are common in winter, while farther south the lesser scaup usually predominates. The scaup is a diving duck and feeds largely on the roots, buds and stems of aquatic plants. In the salt water in winter it feeds much on surface-swimming marine animals as well as on mussels, which it gets by diving.

It is a swift-flying species, and when a pair passes before a gale of wind they will try the skill of the veteran sportsman. The broad-bill sometimes evinces considerable curiosity. I remember sleeping with gun by my side on the shore of a lagoon to shoot the blue-bills which came to me in the early morning light, attracted apparently by curiosity. I have seen them swim up to a dead duck supported in the water by a stick thrust up its neck and down into the mud.

Clangula clangula americana GOLDEN-EYE OR WHISTLER

The golden-eye is a wanderer over the Northern Hemisphere. The sub-species, *Clangula clangula americana*, usually called the whistler on the Atlantic coast, is practically the same as the Old World bird, but is a little larger and is supposed to be confined to North America. It breeds from central Alaska east to northern Ungava and Newfoundland and south to southern British Columbia, and from Montana east in some northern parts of the United States to Maine. It winters from the Aleutian Islands, Utah, Nebraska, Minnesota, Lake Erie, Maine and New Brunswick south to southern California, Mexico and Florida and occurs in Bermuda.



BRANT

BLACK BRANT

See page 27

The golden-eye is by preference a fresh-water bird. This statement will sound strange to gunners along the Atlantic coast who regard it as a "sea-fowl," but it likes both fresh water and cold weather so well that it stays in small ponds until frozen out, when it goes to the larger lakes, and remains there until again driven out by the ice. Then it flies to the sea, which is the only open water available in the north. For this reason whistlers are among the latest of the ducks to arrive on the Atlantic Coast. They reach Massachusetts about the middle of November, but do not appear in numbers about Cape Cod until December, and sometimes in mild seasons they are not very numerous until a "cold snap" in January. While this bird is feeding mainly on vegetable matter in fresh water the flesh of the young is tender and well flavored, but soon after they appear on salt water and begin to feed on shell-fish the quality of the flesh deteriorates. The whistler has received its popular name from the loud whistling of its wings, which often is heard before the bird comes into view. It is an active duck, dives like a flash, and rarely comes well to decoys, but this may be because of the keenness of its vision and the inability of the hunter to keep absolutely quiet and motionless in the extremely cold weather when most whistlers are shot.

The gunner, dressed in a white suit, lies on the ice behind an ice barricade erected near an open hole, or he moors his float in a partly frozen estuary, surrounding it with ice or sea-weed, and sets out decoys; or he may find a hiding-place on the shore on some ledge of rocks and put out his "tolers" nearby in a chance space of open water, and taking his stand before daylight he may get a few shots after an hour of "freezing." Thus the hardy fishermen and gunners of the New England coast find sport in hunting the sea-fowl.

Odemia deglandi WHITE-WINGED SCOTER OR WHITE-WINGED COOT

called coots by coast gunners and fishermen.

This is the best known and most abundant of the sea ducks on the coasts of North America. The surf ducks, of which this is the largest, have very little resemblance to the coot, but nevertheless are

The white-wing ranges over North America and the coast of Northeastern Siberia. It breeds from that coast and Alaska to Northern Ungava and south to central British Columbia, Alberta, northern North Dakota and southern Quebec. It winters on the Asiatic coast south to Japan and China, and in North America from Unalaska Island, Alaska, to Lower California; also from the Great Lakes casually to Colorado, Nebraska and Louisiana, and on the Atlantic Coast from the Gulf of St. Lawrence south to the Carolinas and rarely to Florida. A few white-wings go south through the Mississippi Valley region, but the great majority travel up and down the coasts. A considerable flight also comes and goes between the Great Lakes and the coast of southern New England.

Large numbers of scoters winter along the coast of southern New England where they feed chiefly on mussels, which they obtain by diving. The great beds or floating flocks break up at dawn, and the birds fly in small flocks or companies to their feeding grounds. At points along the coast the gunners of the different towns go out in boats before daylight, and each company anchors its boats in a line extending out to sea for a long distance, so that ducks going up or down the coast must fly over the line and thus run the gauntlet of the guns. Here the white-wings sometimes fly very high, but often they will drop down nearer the water at a loud shout or a hat tossed high in air. Early in the season these birds may be decoyed by wooden ducks anchored in deep water off some little islet near



VIRGINIA RAIL

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CLAPPER RAIL

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KING RAIL

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COOT

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SORA

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their feeding ground where the gunner lies concealed. Often the decoys are made very large, so that they may be seen from a long distance. Many scoters and other sea ducks are shot from boats at anchor, to which they are attracted by strings of anchored decoys. The hunter lies quietly in his boat and the silly coots come on. Scoters are rather rank in flavor, and are not considered fit to eat by some who shoot their ducks mainly on inland waters. A lady assures me that when she attempted to cook one it drove everyone out of the house, and she had to throw away the kettle; but the shore gunners know how to prepare them so as to remove or disguise both the rank taste and smell. Thus cooked the birds make an agreeable change from the usual winter diet.

Chen hyperboreus nivalis GREATER SNOW GOOSE

both shores of Hudson Bay to disappear among the vast archipelagoes of the Arctic seas—a few seen here and there by explorers, a few straggling or breeding on the coast of Whale Sound, Greenland and Ellesmere Land—that is about all we know of the breeding range. It winters from southern Illinois, Chesapeake Bay and Massachusetts (rarely), south to Louisiana, Florida and in the Antilles to Porto Rico. In migration westward it reaches Colorado (rarely) and goes east to New England and Newfoundland.

The greater snow goose is the eastern representative of the species, while the snow goose occupies mainly its western territory. When New England was first settled this species frequented the bays and rivers in gigantic flocks during the migrations. Today it is only in the more southern States that any considerable flights are seen in the east. The great flights of white geese in the far west are composed mainly of the smaller snow goose. A flock of these geese flying at a great height is a beautiful spectacle and one not soon forgotten. Their distant calls are far-reaching and melodious when falling through the clear autumnal air. This species is very wary in the east, but the western birds come well to decoys. Formerly the Indians of Hudson Bay depended largely on snow geese for a winter food supply, but this source of winter sustenance can no longer be relied upon.

Experience has taught this goose wariness, and it is now rather difficult to approach, but in winter on Delaware Bay and in waters farther south when the tide waters are full of floating ice, geese sometimes are hunted successfully by gunners dressed in white, who scull towards them in boats on which ice is piled to conceal boats and gunners.

Anser albifrons gambeli WHITE-FRONTED GOOSE

This is one of the geese that are called brant or prairie brant in the west. The white-fronted goose, *Anser albifrons*, is found over most of the Northern Hemisphere, but the sub-species *Anser albifrons gambeli* is confined mainly to central and western North America. It breeds, however, on and near the Arctic Coast of northeastern Siberia and east in North America on the mainland, and on Arctic islands to northeastern Mackenzie, and south to the Lower Yukon Valley. It is said to breed on the west coast of Greenland. It winters commonly from southern British Columbia to southern Lower California and Jalisco, and more rarely from southern Illinois, southern Ohio and New Jersey south to Mexico, Texas and Cuba, also on the coast of Asia to China and Japan. It is a rare migrant on our Atlantic Coast, but formerly was abundant in migration in the Mississippi Valley region and is so still in California.



WOODCOCK

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Its habits are quite different from those of the brant, as it is much more a bird of the interior, where it feeds on upland grasses, berries and grain. It commonly makes its appearance on the western plains early in October, and there feeds mainly on land in daylight, often with snow geese, and goes to the water at night.

This bird is so highly esteemed for the table that it has been much reduced in numbers by market hunting, particularly in spring when farmers are anxious to have this and other geese shot, as they destroy the young grain.

In autumn, when the crops have been garnered, geese resort to cornfields and search for grain, overlooked or scattered by the harvesters. There, in both fall and spring, gunners lie hid in the corn fields. Near water-holes blinds are made by sticking cornstalks into the ground in rows. In spring there is little cover and sometimes pits are dug. The decoys usually used are dead birds set up as soon as they are shot, by thrusting a stick up the neck and planting the other end of the stick in the soil. Formerly a horse was often trained to feed gradually up towards a flock, while the gunner kept behind the horse until within gunshot, but this is now unlawful.

Branta canadensis CANADA GOOSE

HUTCHIN'S GOOSE WHITE-CHEEKED GOOSE CACKLING GOOSE

What sound of spring in the north has in it such promise as the call of the "good gray goose"?

The day has been dull and chill. Snow still lies along the stone fences in the upland pastures; the landscape is stark and drear; the birds are few and silent; when, as the light begins to fade from the misty arch above, there comes faint and far from the southern horizon the mellowed call of the oncoming flock, winging across the sky. How it stirs the blood! Animation returns and interest in life. Searching the sky we make out the long, baseless triangle and count the birds, as they trail their heart-stirring music across the heavens and bravely breast their way into the forbidding, frozen north. Their passage is the event of the day. What memories awakened as the longing eye follows them on their way. No man to whom the "red gods call" can watch unmoved the first spring flight of geese until they have passed from sight and the last faint call has died in the dim distance of the dun and wintry sky.

Geese, including the four races of *Branta canadensis*, range over all of North America. The Canada goose breeds from tree limit in the Lower Yukon Valley, east to the Tundra in Labrador, and south to southern Oregon, Colorado, Nebraska and Indiana. Formerly it bred over most of the northern half of the United States. It winters from southern British Columbia and New Jersey (rarely to southern Ontario and Newfoundland) to southern California, Texas and Florida. It has been recorded in Bermuda and Jamaica.

The habits of this goose are well known. The methods of hunting it vary greatly in different localities. On the Maine coast it is hunted amid the drifting ice with a gunning float partly disguised by a piece of ice on the bow. The gunner lies low in the float and sculls it in pursuit of the swimming flock. In eastern Massachusetts permanent low buildings are built upon the shores of ponds or along barren beaches and provided with blinds or trenches in front, where the gunners can hide behind hedges of trees and brush. These camps are furnished with berths and cooking conveniences and with many live decoys. Here geese are trained to call their wild comrades out of the sky, and when the flock comes down the hunters gather along the redoubt and, at the word, pour in their fire on the doomed birds. From Maryland south a water-tight box is often used, which is sunk or built on some shoal or shore where the geese are known to congregate. This is surrounded with a fringe of grass or bushes, and live decoys are used to attract the birds. These are set out in the shallow water nearby and fastened to their stools. Some geese and brant have been killed from floating boxes or "batteries," but this is unlawful in some States. On the large rivers of the west, blinds are built on sandbars where the geese come at morning and evening for sand and water. Gunners conceal themselves on islands where geese are driven down stream to them by men in boats. Enormous guns and even rifles have been used to reach geese at long range. In the corn belt geese are shot from pits dug in the fields. The earth taken out is carried away and scattered at a distance, and iron "profile" decoys are used. Success here depends largely on the skillful use of the goose call. Gunners also conceal themselves in straw stacks or in corn shocks prepared for that purpose. Careful concealment and quiet are imperative as the geese come on, for their perceptions are so keen that they are likely to notice the least indiscreet sound or motion and swing away. All sorts of stratagems are used to outwit the wily goose, for she is not such a goose as she looks.

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Branta bernicla glaucogastra BRANT

The brant is a great Arctic traveler. It is the one game bird that is supposed to nest as far north as land extends. It is said to pass on to the north over the Polar Sea toward

regions where no land is known.

Its range includes most of the Northern Hemisphere, but the range of the white-bellied brant which is the common brant of the Atlantic Coast of North America, is not yet fully known. This bird breeds on Arctic islands north of latitude 74° and west to about longitude 100°, also on the west coast of Greenland, while the brant of the Old World breeds on the east coast. The white-bellied brant winters on the Atlantic Coast from southeastern Massachusetts to North Carolina and rarely to Florida. It is rare in the interior, but has been recorded west to Colorado. It migrates chiefly along the Atlantic Coast. Many come down the west coast of Hudson Bay and supposedly cross overland to the Gulf of St. Lawrence. In spring no brant pass the west shore of Hudson Bay, possibly because they find open water on the Atlantic Coast while the bay is still frozen.

The numbers of the young brant are much depleted occasionally by severe weather on their Arctic breeding grounds. In some seasons there are practically no young birds, and it is believed that at such times they have been destroyed by unseasonable Arctic storms which have forced the parents to fly south and save their own lives, leaving the young to perish. Brant still winter in large numbers in broad waters south of Chesapeake Bay.

At Monomoy the gunners build a sunken box near some sandbar, either natural or made for the purpose, and put out a large flock of brant decoys. In some cases live decoys have been used. The brant visit sandbars to swallow sand and gravel, which habit the gunners call "taking in ballast," and they come to join their supposed comrades. Sometimes in severe easterly storms brant are driven in from the sea and, exhausted by their battle with the elements, fly low over the beach ridges, to sheltered bays or ponds inside. This is the hardy beach gunner's opportunity. Hidden in his blind he takes toll of the passing flocks, but these chances are rare. Along the coast of Maine where brant now are comparatively few, gunners pursue the laborious method of lying low in a small gunning float and sculling after them with an oar thrust through a hole in the stern. On their feeding grounds brant prefer to remain on the water rather than to take wing, and where two or more boats work together some one is likely to scull within gunshot. Even the lone gunner may persevere until the birds tire of swimming away ; but this method drives the birds away from their feeding ground.

Branta nigricans BLACK BRANT

The black brant is a western bird, and follows the Pacific Coast as its eastern relative follows the Atlantic. It breeds on the Arctic Coast of North America and on islands from Point Barrow east to near the mouth of

the Anderson River, and is common on the Siberian Coast, the Chukchi Peninsula, and as far west as the New Siberian Islands. No one knows either how far its range extends to the north or where its eastward distribution on those Arctic islands ends and that of the common brant begins. Explorers have seen brant in many parts of the Arctic seas, but often have been unable to determine the species. The black brant winters on the Pacific Coast of North America, from British Columbia south to Lower California, in the interior of Oregon and Nevada, and on the Pacific Coast of Asia south to Japan. It is casual on our Atlantic Coast. The birds often called brant in the Middle West are not brant, as the term is applied there to several small geese.



GREATER YELLOW-LEGS

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BLACK-BELLIED PLOVER

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GOLDEN PLOVER

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WILSON'S SNIPE

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Rallus elegans

KING RAIL

The king rail is the large fresh-water rail of the United States. About all that the average man sees of this bird is a glimpse as it jumps up, flies straight away just above the grass tops for a little distance and drops down suddenly as if its wings had given out. It is much like the Virginia rail in appearance, but larger and possibly handsomer.

The king rail seems to be confined mainly to the eastern United States, but there is a sub-species in Cuba. It breeds from Nebraska, southern Minnesota, Ontario, New York and Connecticut south to eastern Texas, Florida and Cuba. It winters mainly in the southern part of its breeding range, but a few have been taken north in winter. It is recorded in Maine, South Dakota and southern Mexico.

The bird seems to differ somewhat in habits from other rails. Where not much molested it is unafraid and will walk about in plain view, squawking loudly, but ordinarily it is content to skulk and hide. When caught alive it squalls like a hen taken from the roost. It frequents the swampy borders of rivers and ponds overgrown with vegetation as well as the marsh and meadow, and often in autumn it may be found on dry land where it feeds on insects, seeds and grains. Thus it is that while people rarely go out to hunt king rails, many are shot in cornfields or near swamps by sportsmen who are out with their dogs after woodcock or bob-white as well as by those seeking snipe or ducks.

Rallus crepitans

CLAPPER RAIL

WAYNE'S CLAPPER RAIL

FLORIDA CLAPPER RAIL

LOUISIANA CLAPPER RAIL

The clapper rails have been divided into no less than seven species and sub-species. The differences in plumage are rather trifling, and the birds all resemble one another more or less closely in form and habits.

Four sub-species of the clapper rail inhabit the salt marshes of the eastern United States, while the California clapper rail takes their place on the Pacific Coast.

The clapper rail breeds from Connecticut to North Carolina, and winters mainly south of New Jersey. Other races occupy the rest of the range of the species, which extends along the coast from North Carolina to Texas. Another, Cory's clapper rail, inhabits the Bahama Islands.

The clapper is a bird of salt marshes, but is found along swampy shores and tidal waters of the larger rivers. No rail is more noisy. Where it breeds in great numbers its racket is comparable to that of a large flock of Guinea hens. As it nests on the salt marshes, its eggs are washed away sometimes by the waves in severe storms, accompanied by very high tides, and the sitting birds are drowned in considerable numbers. It is very prolific, each pair producing, annually, ten to twenty-four young, as two broods often are raised in a season, but it has no means of defence; therefore rails form a large part of the food of all predatory creatures of the marsh.

The shooting of this rail takes place mainly on high tides, and is similar in character to the pursuit of the sora as described on the next page. The clapper can swim and dive well, and if wounded may elude its pursuer by submerging its body among the marsh vegetation.

Rallus virginianus

VIRGINIA RAIL

Our grandfathers told us that children should be seen and not heard. The Virginia rail is heard but not seen. Many of the peculiar cackling and grunting noises of the fresh-water marsh are made by this bird.

The Virginia rail, like the sora, wanders over a large part of North America, but its range does not extend so far north or south as that of the latter. It breeds from the southern Canadian provinces and

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southern Keewatin south to southern California, Utah, Kansas, Missouri, Illinois and New Jersey and probably much farther south locally, as it is known to breed in Mexico and North Carolina. It winters (largely in the Southern States) from Oregon, Utah and Colorado to Lower California and Guatemala, also in the lower Mississippi Valley, and from North Carolina (rarely Massachusetts) to Florida and other Gulf coast States. It is recorded from Newfoundland, Cuba and Bermuda.

It will puzzle the hunter, who has seen this bird spring out of the sedge and flutter along feebly for a few yards, to imagine how it could get to Cuba or Bermuda, but this species and the sora make long night flights over water, and as they are more or less nocturnal they fly more strongly by night than by day. On moonlit nights when the marsh wrens sing and the feeding ducks gabble and guzzle in the pools, this rail may be heard calling, as it makes its way from place to place, probably feeding as readily as other birds feed by daylight. It is quite an acrobat, as it climbs among the stems and leaves of reeds and water plants, runs swiftly over lily pads and swims and even dives at need with ease and celerity. The Virginia rail apparently is not nearly as numerous as the sora. It breeds not only in large fresh-water marshes, but also along low, wet alder runs, where the nest may be built among the drift, but more often it is placed among reeds or other water plants. It sometimes nests where springs are found in the salt marsh, and often where brackish waters ebb and flow at the heads of little creeks that open into the tide-waters of the larger rivers. The young, like those of all rails, are covered with black down, and they soon run and swim with their parents.

This species seldom rises unless suddenly surprised or chased into the air by a fast dog. There is no swifter runner among our small birds. Its pursuit would soon spoil the ordinary setter or pointer, but many rails are killed in the fresh meadows and marshes by snipe shooters and more by gunners hunting the sora or the clapper in the salt marshes. The flight of this rail is low and slow, and it may be killed with a light snipe charge.

Porzana carolina The forest and the jungle disappear before the advance of settlement, but in
SORA the desert and the marsh the wilderness makes its last stand. In marsh
lands, even close to large cities, the mink and the muskrat still pursue their
way, and here the sora peers from its age-old fastness in the reeds and cat-tails. Soras are found in
migration along river shores and in wet meadows and swamps, throughout the land.

The sora, sometimes called rail-bird or ortolan, is *the* rail of North America—the only rail found generally in the marshes of practically the entire continent. It breeds from central British Columbia, southern Mackenzie, central Keewatin, and the Gulf of St. Lawrence south to California, Utah, Colorado, Kansas, Illinois, and New Jersey, and winters from northern California, Illinois and South Carolina, south through the Antilles and Central America to Venezuela and Peru. It is recorded from Bermuda, Greenland and England.

The sora is a shy and elusive bird, given to keeping out of sight. The saying "thin as a rail" came not from the fence, but from the bird which, although it is about the size of bob-white, can compress its narrow body so as to pass readily between two reed stems much less than an inch apart. There is more or less mystery about the habits of rails, because they spend most of their lives under cover, snooping about in under-grass passages made by them or other creatures of the marsh, or wading or even swimming in water overshadowed by marsh or swamp vegetation. We should see little of the rails if they were never forced to fly, but we may hear their froglike voices in the marsh, if they are



UPLAND PLOVER

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HUDSONIAN CURLEW OR JACK CURLEW

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there, whenever we make a sudden noise like striking a paddle hard upon the water. The sora has a short chickenlike bill, and feeds more than the long-billed rails on the seeds of wild rice and other reeds. Therefore by the time it has fed awhile in the Middle and Southern States, in September or October it is in prime condition for the table and superior to the long-billed rails.

When marshes are flooded, rails may be found in grass fields near the marshes. In such situations a spaniel that will chase them may give the sportsman some shooting. In dry seasons they may be flushed in the same way in the marshes, but the gunner must wear high boots and watch his steps. Soras rise just above the tops of the marsh grass and flutter along a short distance with hanging legs, offering a mark about as difficult as a tin can floating in a rapid current. The best rail shooting is to be had in coast marshes when the rising tide has driven the birds to the highest points, and when there is sufficient water to float a flat-bottomed skiff and two men. One poles the boat through the reeds and the other shoots the startled birds as they rise to seek cover elsewhere. Great bags have been made in this way on the Atlantic Coast in September. A fair shot accustomed to the sport can bag nearly every bird that rises, but the novice is fortunate if he has fair success.

Fulica americana The coot is indeed a coot, and it looks the part. Simple, confiding and foolish by nature, it learns in time by experience not to trust mankind too far. Often it is confused in the mind of the sportsman with the so-called coots or surf ducks which in migration prefer the sea to the fresh-water ponds that the true coot frequents.

COOT

The coot ranges over most of North America. It has been recorded from Newfoundland, Labrador, Greenland and Alaska. It breeds from central British Columbia, southern Mackenzie, Manitoba, Quebec and New Brunswick, south to northern Lower California, Texas, Tennessee, and New Jersey, also in southern Mexico, the southern Antilles and Guatemala. It winters from southern British Columbia, Nevada, Utah, the Ohio Valley and Virginia, south to Colombia. It is casual at Bermuda.

Few birds are more widely known in this country than the coot, and few are less appreciated. Like the rails it lives in fresh-water marshes, but does less wading and more swimming than the rails. Its toes are lobed, each separate toe forming a paddle by itself, and the bird can swim as well as a duck, but its flight is rather feeble and rail-like. In rising from the water it cannot spring into the air, like some of the ducks, but must flutter and run along the surface to get headway. When no danger seems to threaten them coots will leave the cover of the marsh and come out into open water, where they swim and dive for food like any duck, but when thoroughly alarmed they scatter for the cover of the border vegetation. A pool "black" with coots will be cleared quickly by a sudden alarm, but most of the birds merely take cover and soon reappear.

The coot is so simple that it is not hard to approach, but its flesh is so inferior that it is not much sought after. Nevertheless, many are killed from duck blinds, and many more are shot by settlers, when ducks are hard to get, as coots, dressed soon after they are shot, are not so bad, and fried coot graces many a squatter's table.

WOODCOCK

The woodcock like the owl is a night bird. Therefore, more or less mystery enshrouds its habits. Many sportsmen consider it the finest of all game birds. *Philohela minor* It lies so close that I have known one, rising under foot, to strike the ear of my companion with its wing.



BOB-WHITE

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The woodcock, a migratory bird, ranges over more of North America than does bob-white, but breeds over a smaller region, is more local, and its numbers are far fewer. Eastern North America is its stamping ground. It is seen casually in Saskatchewan, Keewatin, Colorado, Newfoundland and Bermuda. It breeds from northeastern North Dakota, southern Manitoba, northern Michigan, southern Quebec, New Brunswick and Nova Scotia, south to southern Kansas, southern Louisiana and northern Florida, and winters from Missouri, the Ohio Valley and New Jersey (rarely farther north), south to Texas and southern Florida. Throughout this range woodcock shooting may be had, according to the season, but only locally in limited localities adapted to the feeding habits of the bird.

The woodcock nests very early in the year, in or near swampy land more or less covered with timber or thickets. There it remains most of the time until the young are able to fly. While mating, the male aspires to lofty flights. As twilight comes on he struts about like a little turkey cock, head pulled back, until the bill, pointing downward, rests against his neck and breast, tail raised high and widely spread, and feet picked up and put down like the forefeet of a high-stepping horse. Suddenly he lowers his head, and with a squeak and a high, whistling note, supposed to be made by the wings, launches high in air and, hurrying back and forth higher and higher in the darkening sky, pours out a series of twitterings and whistlings that would do credit to some more pretentious songster. Then, having exhausted his vocal talent for the time, he slides down a long slant and drops to earth near his chosen mate. The mother bird carries her young over a stream or removes them when danger threatens.

The woodcock has a host of followers. Many sportsmen believe it to be the grandest game bird that flies. This is not by any means true of the early and inexperienced bird that flutters lazily up above bush tops like a dazed, half-awakened owl, flies along a few yards and drops again to the ground. But the full-winged cock in prime condition as it comes down from the north in October and November is fair game for any sportsman. Now it darts upward through the treetops, sometimes twisting equal to any snipe, its wings a mere nebulous haze as it speeds away on the gale. And often it tries the skill of the quick and slashing brush shot. Then when unerring instinct has sent the charge where it meets the bird and that russett breast turns toward the sky, what a thrill of exultation fills the sportsman's heart. No woodcock shooting should be allowed anywhere until October. Then it begins to be real sport. A close-working dog with a bell, beating through the alder runs, will give good service when the birds are there. The marks of their bills in the mud and their white droppings are the signs to be looked for. As the flight birds come they must be taken while here, as they are here today and gone, perhaps—not tomorrow, but tonight.

Gallinago delicata WILSON'S SNIPE

birds on the table.

The snipe, often called jacksnipe or English snipe, is to the marsh gunner what the ruffed grouse and the woodcock are to the brush shooter. Some believe it to be the finest of game birds, and it surely surpasses many

It ranges wide and far, extending over most of North America and northern South America. It breeds from northwestern Alaska, northern Mackenzie, central Keewatin and northern Ungava, south to northern California, southern Colorado, northern Iowa, northern Illinois, Pennsylvania and New Jersey, and winters from northern California, New Mexico, Arkansas and North Carolina through Central America and the Antilles to Colombia and southern Brazil, and locally north to Washington, Montana, Nebraska, Illinois and Nova Scotia. It is accidental in Hawaii, Bermuda and Great Britain.



MOUNTAIN QUAIL

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CALIFORNIA QUAIL

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As the breeding season comes on, the male snipe rises high in the air and swings over the meadows in a wide circle, sometimes nearly a mile in diameter, sidling through the air every few rods and producing in some way a loud recurrent sound. Sometimes this erratic circling is continued for half an hour or more, and the sound produced can be heard fully a mile. At the end of the performance the bird dives almost straight down to earth with vibrating, partly expanded wings. This is the so-called drumming of the snipe. In spring on the breeding grounds the exhibition is most prolonged, energetic and varied, but some drumming is done even in the fall in fine weather. Notwithstanding the wide range of the snipe its numbers are never great, except in the larger meadows and marshes, as it is a bird of open, wet lands, and the area of such lands is limited. It is found rarely on dry lands or on good woodcock grounds. It is not as much a night bird as is the woodcock, although it flies in the night as well as in daylight. River meadows, the higher parts of salt marshes, and moist ground along small streams are favorite feeding grounds. The snipe is a grand game bird. By all means let the beginner get after it. Here is fine practice in the open with none of the perplexities of bush shooting. I remember an early experience. When going to a spring for a pail of water up started a twisting snipe. Next time I took the gun along and six charges went after that accommodating bird before it came to bag. But the sport had merely begun. The meadow was full of them, and there I burned much powder and soon learned to admire the elusive birds and to stop one now and then:

The snipe like the woodcock has some individuality and rarely travels in flocks. It migrates largely at night, but also moves considerable distances by daylight. Like the woodcock also, it gets its living largely by boring in the mud, sometimes even in woodcock cover. It does not like dry land or too much water.

The snipe lies well to a dog, particularly on still, warm days, but where the birds are very numerous a dog is likely to become confused and useless, except possibly for retrieving. The snipe has a great reputation for artful dodging. It rises quickly and, if the day be windy, is likely to make a very erratic flight at first. Some people counsel the beginner to wait until the bird "stops twisting" and then kill him, but the best snipe shot I ever knew killed his birds as they rose. This takes lightning quickness, but is the only sure way when on a windy day the birds are wild and rise at long range. Then some advantage may be gained by hunting down wind. As with the grouse, the beginner should shoot every time the bird rises within gunshot. He will miss most of them, but if he continues shooting one will run into a charge now and then.

Totanus melanoleucus GREATER YELLOW-LEGS

This bird, known to many gunners on the Atlantic Coast as the winter yellow-leg or "winter," ranges over North and South America, but not to the Arctic Circle. It breeds from Alaska and southern Mackenzie to southern British Columbia, probably eastward across Canada, and from Ungava to Anticosti. It winters from southern California, Texas, Louisiana and Georgia, south to Patagonia. Non-breeding individuals have been seen throughout the year in Florida, California, Texas, the Bahamas, the Antilles and Argentina. It also reaches Bermuda.

It is common over most of North America near water, but is rather rare on the Pacific Coast, and in its fall migrations on the Atlantic Coast tends to cross the sea, rather than to follow the shore, except when driven in by storms. This habit and its scattering over the continent in its spring migration has saved it from extinction, and it is still numerous. If perpetually protected by the Federal regulations in spring it will continue to exist in considerable numbers. It frequents the shores of tidal marshes



WHITE-TAILED PTARMIGAN

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and creeks as well as those of fresh-water ponds and rivers. In August when the ponds of the interior have been lowered by summer drought it may be seen wading along bared shores and bars.

It is a noisy bird and a tell-tale, always on the alert. Its startled cry warns all the birds of the marsh, but if the gunner knows its habits and its calls it is not a difficult bird to decoy within range. In gunning for shore birds a little hole in the beach sand, roofed or unroofed, covered or surrounded with grass, seaweed or other vegetation and made to look "natural" is all that is required for a blind. On flat, bar or beach a watertight box sunk in the sand a foot or fifteen inches deep is a killing device. Sometimes in the marsh a small skiff, painted green, may be so hidden in some ditch or drain in tall grass as to make a good blind.

The meadow pond-holes are sure spots for the yellow-legs, especially when the birds are traveling with the wind. The painted wooden decoys should be set to windward of the blind, as the birds coming down always turn toward the wind to alight, thus swinging close to the gunners. Stools often are set in a crescent shaped line with their heads pointing toward the wind. "The more the merrier." Fifty are not too many. When a flock or even a single bird comes within hearing the gunner calls either with a bird-call or with his natural whistle. A good caller is almost sure to attract the birds.

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When a flock comes in, they sometimes come back after the first shot, if skillfully called, and thus give the gunner at least two chances.

Bartramia longicauda THE UPLAND PLOVER

The upland plover is not a plover. In fact there is no such bird, for it is a sandpiper, but as in the case of our robin which really is a thrush the people's name has prevailed at last, and ornithologists have bowed to the popular will. The mountain plover which winters in California is much better entitled to the name of upland plover by which it is known to California sportsmen. The Bartramian sandpiper or upland plover is in imminent danger of extinction. In the New England States it has failed to increase much under continuous close seasons. The Federal law for the protection of migratory birds which now (1916) protects it at all times may save it, otherwise its doom is sealed.

It ranges over most of North and South America, breeding from northwestern Alaska, southern Mackenzie, central Keewatin, central Wisconsin, southern Michigan, southern Ontario and southern Maine, south to southern Oregon, northern Utah, central Oklahoma, southern Missouri, southern Indiana and northern Virginia. It winters on the pampas of South America south to Argentina. It has been taken in Newfoundland, Europe and Australia. Its breeding grounds are limited, not by the marshes, but by the extent of unforested uplands, for it is a bird of the upland and open country, rarely frequenting low river bottoms, lakes or the shores of the sea.

Years ago on warm May nights the far-reaching, mellow call of the plover could be heard in all directions from the upper air as the great flight passed northward under the stars. The birds nested in numbers from Maine nearly to Texas. The nests were built on the ground in the prairies, pastures, ploughed lands, even in cornfields, and they may be found rather rarely in such situations still. As the prairie country was settled, late ploughing or summer fallowing destroyed the eggs or young in large numbers. Then came the market hunter.

All through the early summer the young birds roam the grass land or the ploughed fields, feeding on insects, wild strawberries, etc. The parents sound the alarm at the approach of an enemy and the little ones hide. In July when the grass is cut in the fields they are able to fly, and in August the plover clans gather for their long flight to South America, feeding meanwhile on grasshoppers, locusts, crickets and other grass insects as well as the seeds of weeds and waste grain in the stubble fields.

Numenius hudsonicus HUDSONIAN CURLEW OR JACK CURLEW

The Hudsonian curlew is a case of the survival of the fittest. With the Eskimo curlew practically extinct and the sickle-bill rapidly approaching extinction, the Hudsonian or Jack curlew is the only curlew that can be called common in the United States. In this country it is now (1916) protected at all times by the Federal law until 1918. Under protection it is increasing considerably in numbers. It has been preserved thus far, partly, perhaps, because of its inferior table qualities and partly by its own caution.

The Hudsonian curlew ranges over most of North and South America, breeding in far northwestern Alaska and on the barren grounds and Arctic coasts of Mackenzie, and wintering in Mexico, Central America and South America, as far south as the Amazon and southern Chile, mainly on the coast.

This species often is mistaken by gunners for one of the others, for the reason that young birds have bills almost as short as those of the Eskimo curlew while the bill of the adult often is longer than



DUSKY GROUSE

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that of a young long-billed curlew. When the young are full-grown and strong on the wing the curlews leave the breeding grounds. Some Alaskan birds go down the Pacific Coast while most of those that breed to the eastward fly from the west shore of Hudson Bay across to the New England coasts and pass on south. Smaller numbers go south across the continent. The fall flights on our shores occur in August, September and October, while the spring flights begin in Florida and southern California in March and leave the northern border of the United States in May.

Curlews when feeding near the shore scatter quite widely. In the north they commonly are seen singly or in rather small flocks, but farther south the bands are larger. In New England the adult of this species is the most difficult of all shore birds to take. The young are tame in comparison. They are known to the Nantucket gunners as blue-legs or foolish curlews, and may be decoyed much more readily than the adult birds. The man who can stalk an old bird successfully is entitled to the degree of S.E.—still-hunter extraordinary.

Squatarola squatarola BLACK-BELLIED PLOVER

The black-bellied plover breeds on the Arctic coasts of Russia and Siberia and winters in Africa, India and Australia. In America it breeds from Point Barrow, Alaska, to Boothia and Melville Peninsulas, and winters from California, Louisiana and North Carolina to Brazil and Peru. It migrates throughout the United States even to California by land and sea, and has been taken in Greenland, Bermuda and casually in Hawaii.

This and the golden plover only can be killed legally now (1916) in the United States. All other plovers are now protected at all times by the Federal law for the protection of migratory birds with the intent of saving them from extinction and increasing their numbers. This fine bird has escaped such extreme decimation as followed the golden plover, because its numbers were never so concentrated in spring migration in the Mississippi Valley—formerly the happy hunting ground of the market hunter—and because a large part of the flight comes up the Atlantic Coast in spring, where some few States have prohibited spring shooting of shore birds. Shore birds cannot stand as much shooting as wild fowl or gallinaceous game birds, for the reason that they lay few eggs and raise but one brood each year. Enforcement of the Federal regulations against spring shooting throughout the United States will save this plover from the fate that long has menaced many of the shore birds. In the west it is partial to ploughed fields. It feeds on cutworms, grasshoppers and earthworms. On the coast it takes such marine food as it can find on marshes, beaches and tide flats, and where not much molested, nests or feeds in pastures or on marsh or shore. When hunted it becomes very shy.

A water-tight box or hogshead, sunk in a natural clump of bushes or grass and well concealed makes a good blind. The birds will not always come to the best whistled imitation of their notes, and when they approach they are likely to string out so that those most wary are out of gunshot when the others come within range.

Charadrius dominicus dominicus GOLDEN PLOVER

The golden plover in its three forms is almost cosmopolitan and ranges over most of the world, from the Arctic regions almost as far south as the continents extend, except in Africa and Australia. The Pacific golden plover is mainly an Asiatic bird, but breeds in Alaska and migrates to the Hawaiian Islands. The golden plover of America ranges over most of both continents. Its breeding grounds extend along the Arctic coast and islands from Kotzebue Sound, Alaska, as far east as the northwest coast of Hudson Bay. It winters mainly in Brazil and in Argentina.



PRAIRIE CHICKEN

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In its autumnal migration it travels in a southeasterly direction. The greater number go across to the coasts of Labrador and Newfoundland, where formerly they arrived in late August and September, in company with the Eskimo curlew in gigantic flocks that darkened the sky. From there they set out in a southeily course to the Lesser Antilles and South America. For weeks they were seen by Banks fishermen flying south in large flocks. They commonly landed in myriads at the Bermudas and Barbados during this flight. Statements have been made that this flight to South America was without stop or rest, but great flocks of "plover" have been seen by ship-masters feeding on floating seaweed nearly 500 miles from land.

Some individuals go south through the interior, and many more along the Pacific coast as far as California. In spring this plover avoids the Atlantic coast, and the great flight reaches the breeding grounds through the interior of the continent.

The vast hordes of golden plover in America are no more. Only a small remnant now migrates down the Atlantic coast, and a larger contingent on the Pacific coast. The few that go south across the continent are negligible. The bird now commonly called the golden plover in Texas and some

other portions of the west is the buff-breasted sandpiper—*Tyringites subruficollis*. Flights of, this plover still go down the Atlantic coast, and a few land in certain seasons on Cape Cod and other points in New England. On the Pacific coast their numbers are said to be still considerable at times, and they are said to afford good sport in Washington, Oregon and California.

As the settlement of the pampas of South America progresses this plover is exposed to a new danger, and should have absolute protection for a series of years in both North and South America. Unless such provision can be made, the golden plover is in danger of extirpation.

Colinus virginianus

BOB-WHITE

FLORIDA BOB-WHITE

TEXAS BOB-WHITE

MASKED BOB-WHITE

The call of bob-white is a sound of gladness. There is something cheering and heartening in his interrogative whistle, as who should say, "Ah there, fellows?" Bob-white is an optimist and all the world loves him. He is the principal upland game bird of the eastern States, and inhabits more of our territory than does any other. From the standpoint of the greatest good to the greatest number he leads the list. In the south they

call him partridge, in the north, quail; but he has named himself bob-white and ornithologists have settled the dispute by conceding that he is the prior authority.

His normal range covers all the eastern United States from eastern Colorado, South Dakota, southern Ontario and southwestern Maine to Texas, the Gulf coast and Florida, if we include the range of the four sub-species, the habits of which are much alike. Bob-white has been introduced also into Colorado, New Mexico, Utah, Idaho, California, Oregon and Washington.

He is no bird of desert or mountain peak that one must go far to find. He comes and visits with the folks, frequents the garden, orchard, field and barnyard. His life is an open book—his habits well known to all who care to see. Doubtless the Lord might have made a finer game bird than this, but surely He never did. It seems to have been made to exercise the bird dog, and the one is a fit complement of the other. But the little bird has some means of withholding its scent at times. I have watched a cock bird "melt" into the short grass and have seen the dog come up and pass close by, not "winding" the bird at all. No one has yet been able to explain this satisfactorily. But such occurrences are not the rule, and a staunch setter or pointer, well broken and with a good nose, will give his owner splendid sport with this bird. It is best not to start out too early in the morning, but to wait until the dew or frost has dried off a little.

He who hunts bob-white should know that in autumn this bird feeds mainly on waste grain and the seeds of grasses and weeds. Hence in the farming country where it is most at home it will be found about gardens, cultivated fields, stubble fields, and old grass fields, where there are weed thickets or standing corn for cover. When the birds are not to be found in such situations they may have flown to brush thickets along some fence or to woods or swamps nearby for protection from their many enemies. Cultivated fields, thickets, wheat stubble, standing corn, buckwheat, grasses, rough pasture and stump lots make a good "quail country." The birds lie close as a rule and the young are easily scattered and picked up. A good sportsman will be satisfied with two or three birds from a covey and will then leave them and look for another. The man who shoots over the same ground day after day and exterminates the birds is the bob-white's worst enemy, but in the northern part of its range severe winters are equally destructive.



WILD TURKEY

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Oreortyx picta

MOUNTAIN QUAIL PLUMED QUAIL SAN PEDRO QUAIL

This elegant bird, the largest of the family, prefers brush, chaparral or timber to open country, and mountains to plains. It cannot, like the valley quail, readily adapt itself to civilization, but disappears before the advance of settlement and agriculture.

Its range extends along the Pacific Coast region through western Oregon, California and northern Lower California. It has been divided by the systematists into three races or sub-species, the common names of which are given above.

As the chicks approach maturity they frequent thickets of manzanita, chemical and other chaparral. This quail loves the higher glens of the mountain ranges and their foaming brooks. The climber among the greater hills of the Pacific Coast of California hears a sweet and plaintive call "*quit-quit-quit-quec-ah*," and if he is on the alert he may see the quail stealing into the chaparral on the slope above. When pursued it commonly trusts to its legs rather than its wings, and when it first begins to run, it keeps well ahead of its breathless pursuer. Occasionally it may be seen fluttering from rock to rock just out of gunshot as it makes for "tall timber."

When a flock of mountain quail starts sprinting, it will soon place hundreds of yards behind it. Although this bird usually runs, it will lie well at times late in October or early November, and if the flock can be thoroughly scared and scattered good sport may be had for a short time. Some Californians now hunt them with dogs much as the valley quail is hunted. Usually this quail is harder to kill than bob-white, as it rises farther away and flies at about the same speed in a slightly curved course. If not stopped by the charge when first flushed it may disappear in "the dim distance." The novice of the low countries will tax his legs, heart and lungs to the utmost in the chase, but if he perseveres he will find his account in the physical benefits conferred by exercise, sunny skies, pure air and limpid water from the mountain streams, as well as in the mental and spiritual exaltation gained from the ever changing prospect of the empurpled hills.

Lophortyx californica CALIFORNIA QUAIL VALLEY QUAIL

This lovely little fowl is the handsomest and most active of American upland game birds. Its plumage is elegant, its carriage erect and graceful. Its bright markings and exquisite tints are equaled by no other bird of the family, except, perhaps, Gambel's quail, a closely allied species which some regard as even handsomer.

Its natural range includes the Pacific Coast region from Oregon south to southern Lower California, but it has been introduced into every county in Oregon and into western Washington, Vancouver Island and some other islands in Puget Sound. It is not a bird of the eastern desert region, where its place is taken by Gambel's quail.

It lives largely in the valleys and foothills in California, from near sea level to a height of about a mile above it, but seems to prefer brush-covered slopes to open farm country, though it may be found in both.

The California quail hardly can be classed with bob-white as a game bird. But tell this not to the Californian if you care to retain his friendship, and it must be admitted that with many of the dogs trained by California sportsmen excellent sport may be had with this bird. It has the reputation of being a great runner, but it is remarkably intelligent and quickly adapts itself to its environment. It



SHARP-TAILED GROUSE

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seems as if it has learned to enter into the game and often it will lie well to a dog. When a bird gets up at a distance the gunner must shoot quickly or he might as well fire at "a bumble bee," for it wastes no time in starting and is soon "going some" and is likely to keep going for awhile. Whatever may be said about other game birds, *this bird is alive*. It is a good bird on the table if properly prepared, and as the Californians know how, it is best to let them do it.

In many places on the plains frequented by these birds cactus spines will punish a dog terribly. Where the birds are numerous and where dogs cannot be used or had, as was the case in many localities when I was on the coast thirty years ago, the following method has its advantages. When the flock starts running, their sharp alarm note, like the blowing out of the breath between the teeth, should give the hunter warning that the sprint has begun. When the country is open enough for quick footwork, he should then run into them *if he can*. If he cannot get into the midst of them he can shoot close over them or ahead of them as they run, and this is likely to scatter them, but they must be followed at high-speed, chased and shot at; otherwise they will quickly get together and run for "parts unknown." They must be given no rest, but the chasing and shooting must go on until they are scattered, when

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they will hide and lie more or less closely and may be flushed one or more at a time, if quickly followed up. Two active men will have more success in this way than one, and the novice must not expect much sport until he has "learned the game."

Dendragapus obscurus

DUSKY GROUSE

SOOTY GROUSE

RICHARDSON'S GROUSE

SIERRA GROUSE

The four races of this species are known commonly by such names as blue grouse, gray grouse, pine grouse, pine hen and fool hen. Including the recognized races, the normal range of the species takes in the Rocky Mountain and Pacific Coast regions from the Upper Yukon and Upper Mackenzie Rivers south to the mountains of California and central Arizona.

This is the largest of American grouse, excepting the sage hen, and weighs from two and one-half to three and one-half pounds. It is a bird of coniferous forests from timberline to sea level, although not common on the seashore. In spring it feeds largely on insects, but over ninety per cent. of its food for the year is vegetable matter, mainly "needles" and flowers of the pine, fir and hemlock. The sooty grouse of the Pacific Coast is a bird of great forests, where mighty windfalls, devils' clubs and giant ferns obstruct the openings, and where Douglas firs, tall pines and cedars tower to the skies. It seems to love the edges of the timber and rare openings along the streams. Here the males strut and boom in the mating season, and here the females build their crude ground nests. Wherever the snow lies deep this grouse appears to pass most of the winter in the tree tops. Here the birds hide from most of their enemies, find shelter and food in the abundant foliage, which would seem to us about as palatable as sawdust, and get their water largely from the snow or rain that falls on the trees.

On the Coast Range of British Columbia in September, when the swala berries and the ripe salmon berries hang glistening with the morning dew—then is the time to look for the blue grouse. The bears and even the wolves are berrying on the mountains, and the full-grown broods of this splendid grouse are berry-hunting in the thickets. The sportsman in the hunting season will be likely to find this bird upon the ground in the early morning or at noon near a stream, and sometimes it will lie very close and flush again and again. This makes stirring sport, as the bird flies swiftly, but usually when flushed it takes to the trees, and then it becomes fair game for the rifle.

Bonasa umbellus

RUFFED GROUSE

CANADA RUFFED GROUSE

GRAY RUFFED GROUSE

OREGON RUFFED GROUSE

He who can best the ruffed grouse fairly, on the wing, in its native wilds, has in him the makings of a man. No better game bird stands or flies. Will someone tell us why the American sportsman looks to other countries for game birds when we have here a supply of the best and hardest in the world if we will only take care of them?

This splendid species, represented by the four sub-species named above, ranges the wooded regions of Alaska, Canada and the northern United States, and south to California, Colorado, Kansas, Tennessee and in the Alleghenies to Georgia. It has been exterminated in parts of several States where once it was common, but can exist and multiply anywhere within its range if given reasonable protection and sufficient cover.

Why enlarge upon the habits of this grouse? Most gunners know the more prominent ones, but a man might live a hundred years and never learn all its tricks. We know how the cock drums with



RING-NECKED PHEASANT

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its wings while standing on log, stump or stone; how the mother bird steals away to nest in concealment, to escape from the male, who if he finds her nest behaves like the traditional "bull in a china shop"; how the young are ready to run the moment they are hatched, and how the mother either leads pursuers away or defends the little ones with her life; how the little chicks soon learn to fly for many rods; how the mother cuddles them under her wing wherever dusk overtakes her, and how later they learn to roost in trees. But how many really know whether or not the bird is polygamous, or that rarely in some seasons in some localities the cocks do not drum at all; or that the mother bird usually follows her young, watching for any enemy that may be upon her trail? The books say that she leads them.

Whoso hunts this bird in a fair and manly way, wherever it has been "educated" by pursuit and the bird dog, will earn every bird that he gets. The law should not allow its hunting in the Northern States much before October, nor should it be hunted when the leaves are all off deciduous trees and the snow has come. Every shooter of the ruffed grouse should begin as a student of its habits, and go over the ground in summer and fall and learn where the birds resort. Let the beginner first practice gun handling at the traps until he can break the clay birds *on the rise* at close range, and when he is quick enough for that he will have some show at the grouse in cover. A rather close working dog, not too fast, and one that the birds will "lie to" is the favorite. Let the novice *shoot* when the bird rises. See him if you can but *shoot!* Don't be afraid. The *bird* is in most danger! Shoot at the bird if you can see it, and if you can't, cut loose at the flicker of a vine, the motion of the leaves where he went, or even the sound as he rises. If you don't hit him you will at least have done your share in educating the fellow. Keep it up, and by and by you will get one. Some unfortunate bird may even run into a charge the first day. The first lesson is learned when by shooting into the thickest foliage you have killed a flying bird that you did not see. Study the food of the grouse in the shooting season. That will tell you where to find them. The bird has a bag-full of tricks. He tears away behind a tree trunk or a thick bush, or circles on his trail and gets up behind you when you are not expecting it, but therein lies the fascination of the pursuit, and in circumventing his wiles we must utilize our knowledge of grouse habits and woodcraft, which adds to the pleasure of the final conquest.

Lagopus leucurus

WHITE-TAILED PTARMIGAN KENAI WHITE-TAILED PTARMIGAN

This species ranges through the mountains of Alaska, British Columbia and the United States south to northern New Mexico. The Kenai white-tailed ptarmigan is confined to Alaska. The common white-tailed ptarmigan is the more southern bird.

This bird is called the snow grouse, snow quail, white quail or snow pigeon. It is a hardy dweller on Alpine heights where icy winds sweep over snowy wastes.

This is a bird of the sky-line, the hoar frost and the snow. Mottled as the "rock tripe" in summer, white as the snow in winter, it depends upon its protective coloring to hide it from its enemies. In Colorado it nests in May at an altitude of 11,000 feet. It is considered the champion fool among land birds. Many a mountain climber in the north has picked the mother bird off her nest as if she were a sitting hen, and set her down nearby, with only a complaining protest on her part. The species is so boreal and clothed so like a snow owl in down from beak to claws that warm weather is its bane. A female was found sitting comfortably on her nest in half an inch of ice-water. When the May sunshine strikes the birds on their mountain heights they throw themselves into pools of snow-



BAND-TAILED PIGEON

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water and lie there panting. Meanwhile the chill mountain air sets the human watcher shivering. In winter they scoop little holes in the hard snowdrifts to escape the awful wind or descend into the timber where they subsist on willow buds, birch catkins, and other vegetation.

In pursuit of the snow grouse the "tenderfoot" unused to Alpine work in the thin, clear mountain air, will soon find his lungs and heart pumping distressfully and his limbs weak and wobbly, but those who overcome the mountain weariness or sickness will be well repaid by the vast and wonderful prospect, even if they fail to find the ptarmigan. Any blunderer with a gun can kill them if he has the courage to climb the mountains, and a sharp eye to find them; but where they have been much hunted they may lead him a fearful chase, running fast, rising beyond gunshot and flying far. In such a case the hunting of the ptarmigan is no joke.

Tympanuchus americanus

PRAIRIE CHICKEN

ATTWATER'S PRAIRIE CHICKEN

The prairie chicken is moving on the Canadian northwest. As American farmers emigrate to Canada the bird follows them. "Chickens" are now numerous in some Canadian regions where formerly they were said to be unknown. As

dairying supersedes grain raising, these birds seem to migrate to regions where virgin soil has recently

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been turned by the plow and where grain growing is the principal industry. The increase of this grouse in such sections is due in part to a movement of the species, but more to an increase in its numbers where grain is grown and a decrease where this favorite food disappears, although the principal agent of the decrease in the United States has been the market hunter. This fine bird may still be increased in any part of its former range by propagation and sufficient protection and food whenever the people of those States care to undertake the task.

The prairie chicken, including both forms and the lesser prairie chicken *Tympanuchus pallidicinctus* of the great plains from Kansas south, occupies central North America from south central Canada to Texas and Louisiana and east (formerly) to Ohio. It is still met with east, possibly to western Kentucky and to Indiana. The eastern form which once was numerous in the middle Atlantic States and in southern New England is the heath hen, a small species now extinct except on the island of Marthas' Vineyard, Massachusetts. Attwater's prairie chicken is found today on the coastal plains of Louisiana and Texas.

With early spring the dancing season of the prairie chicken is at hand. Where it is numerous fifty or more males gather at a trysting place at daybreak and their booming note becomes one continuous sound, deep and full, a little like the distant mellowed lowing of many cattle. Each male lowers his head, inflates his neck and the great yellow sacs on each side, which swell to the shape of half an orange, throwing the "neck wings" over his head like a rabbit's ears, and thus, tail raised and spread, wings drooping and stiffened, he charges about, blowing out his resonant "Boo-rum-roo, boo-rum-roo." Later there is leaping, cackling, dancing and even fighting. In the midst of all this excitement the hens coolly walk about or feed as if it did not concern them in the least. The weird, booming chorus may be heard for more than a mile in the still morning air.

Once "chicken" shooting was the easiest kind of shooting. Much of it was done with a wagon or a buck-board or even from horse-back. It is mainly in the open, and as carried on formerly it was a game for the lame and the lazy. Now in November, however, it taxes man and dog as it becomes real sport, requiring a fast dog and a hard shooting gun well charged to bring home the fine, fat, full-winged birds.

Pediæcetes phasianellus

SHARP-TAILED GROUSE

COLUMBIAN SHARP-TAILED GROUSE

PRAIRIE SHARP-TAILED GROUSE

settler. It is a fine game bird, lies well, and affords excellent shooting as it whirrs up and goes buzzing and clucking away.

This bird does not appear, like the prairie chicken, to follow settlement and agriculture, but rather retreats before it. It is more a bird of the thicket than is the prairie chicken, still it does not disdain the grain or the alfalfa of the

The species, including its three sub-species, is found in suitable localities throughout central and western North America from central Alaska and Ungava to northeastern California (now believed to be extinct within the limits of that State) and Illinois. This range covers a great area, but lies largely in Canada and Alaska. The northern sub-species, the sharp-tailed grouse proper, is distinctly an Alaskan and Canadian race, occupying most of central Canada and south to Lake Superior. The Columbian sharp-tail ranges south to Colorado and Utah in the higher lands and the prairie sharp-tail extends from the southern parts of Alberta and Manitoba to Wyoming, Kansas and northern Illinois.

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The sharptail, known to many gunners as the piketail, pintail or white-belly, is *the* dancing grouse. Its mating antics are the most amusing performances perpetrated by any American game-bird. From six to twenty or more birds get together on some hillock or knoll, and their actions remind one of an Indian dance. The deflation of the air sacs produces a "booming murmur." They swell, bristle, strut in stilted attitudes, bow, squat, rush back and forth, stamping their feet violently, and whirl about, cackling, crowing and leaping over one another and occasionally fighting.

No shooting of these birds should be allowed before October, when they are full-grown and strong, are not likely to lie so close as earlier in the season, and will fly farther. It seems like murder to kick the young birds out of the grass in August or early September, or to shoot them on the ground. In October both man and dog must work for the birds that they get. Then the birds alight and roost in trees, but where much hunted they often leave the trees before the sportsman gets within gunshot. At this time the hunting of the sharptail affords healthful exercise for red-blooded men.

Meleagris gallopavo

WILD TURKEY

MERRIAM'S TURKEY

FLORIDA TURKEY

RIO GRANDE TURKEY

This is the king of game birds. It is the largest of them all, and a tender young turkey properly cooked and served is a dish fit for the gods. The domesticated turkey is not to be compared with it.

This species, as represented by four of its five sub-species, formerly ranged over the eastern and south central United States, west to Arizona, and south in Mexico to the mountains of Oaxaca. Its range also extended into southern Ontario, and west and north as far as the Black Hills region, and up the Missouri River to the mouth of the Cheyenne. It was once numerous over much of this great territory. In the fall the flocks sometimes gathered into veritable armies. Even as late as the early part of the nineteenth century, so Audubon informs us, turkeys weighing ten to twelve pounds were offered for threepence each, and the finest birds, weighing twenty-five to thirty pounds, were considered "well sold" at twenty-five cents. Except in Pennsylvania, turkeys are now rare or extinct in the northern States.

Our wild turkey is not believed to be the progenitor of the domesticated turkey which is supposed to be descended from the Mexican turkey, which has a white rump, but it is significant that in a few generations in domestication the descendants of our wild turkey have come to resemble in color the common domesticated bird. The wild turkey in nature is a handsome fowl. It is naturally one of the least suspicious of birds, but experience has taught it to be one of the shyest of wild creatures. It has been exterminated from a large part of its range by hunting and trapping at all seasons, by farmers, squatters, negroes, and "sooners" generally.

The wild turkey is polygamous in the extreme, and if several old gobblers be spared in any locality the females will be served daily and the species will be preserved. But there are many hunters who can find a turkey cock only by his gobbling. So the gobblers are hunted most at the very time when they are engaged in perpetuating the race. In spring the old males are in good condition, and then are called to the hunter and shot for the table. If spring shooting is allowed they will be destroyed, and the hens will have no chance to breed except in settled regions, where they have been known to mate with domesticated gobblers, thus producing hybrids, which, if fertile, vitiate the breed. Therefore, if the wild turkey is to be saved to posterity there must be no spring shooting.

Many pernicious forces tend to destroy the eggs and young, not the least of which is cold rainy weather—always destructive to young, gallinaceous game birds.

The best weapon for turkey hunting is a small-bore rifle, and the best turkey call is made from the hollow *radius*, a wing bone of the turkey. He who cannot call turkeys but would hunt them must know their food, and where to find it, and must be up before daylight and on the ground where they are feeding, and while they are still hungry and hunting for their breakfast. Then if he is a skillful, still hunter his chance may come; or he may follow them again at evening, find where they roost, and, by stalking noiselessly, shoot them from the limbs in the late twilight as they stand out against the dim, light of the western sky.

Phasianus torquatus RING-NECKED PHEASANT

The Chinese ring-necked pheasant, now introduced into the United States, has been called the Mongolian pheasant, but is specifically distinct from that bird. The so-called English pheasant, *Phasianus colchicus*, also introduced, has a dark neck with no white ring. It gets its specific name from the ancient country of Colchis on the Black Sea, whence it was imported by the Greeks and afterwards carried to England by the Roman conquerors. The ring-neck and the Japanese versicolor pheasant *Phasianus versicolor* also have been introduced into England. Both species inter-breed freely with the English pheasant and with each other, producing fertile hybrids. Therefore, outside of Norfolk, where the original English stock has been retained there are few pure blooded English pheasants in England. Through centuries of breeding for eggs the English pheasant is said to have lost much of the incubating instinct. The female ring-neck is a good mother, and therefore superior as a wild game bird.

For more than a hundred years attempts have been made to introduce pheasants into this country and acclimate them as wild game, but the first successful introduction was that of Judge O. N. Denny, United States Consul-General at Shanghai, China, who shipped the birds to Oregon in 1880. In 1892 an open season was allowed by law, and 50,000 birds were reported as killed the first day. This encouraged other States to experiment.

Stocking with pheasants has succeeded in parts of Oregon, Washington, British Columbia, California, Massachusetts, New York, New Jersey, Virginia and possibly one or two more States. It is said to have failed in Missouri, Oklahoma, North Dakota, Indiana, Minnesota, Illinois, Michigan, Kansas, Nebraska, Idaho, New Mexico, Louisiana, Alabama, Ohio, Pennsylvania, Delaware, Maine, Vermont and Nova Scotia. Mr. Charles E. Brewster, Game Expert of Pennsylvania, asserts that Illinois, Missouri, Indiana and Oklahoma have expended over a million dollars in unsuccessful attempts to introduce pheasants.

The ring-necked pheasant is normally a bird of open or bushy country, river valleys, meadows and marshes. It thrives best in a climate like that of England, where the winters are comparatively mild and there is little snow. In colder regions this bird, roosting on the ground, frequently is imprisoned by snow and ice as its long tail freezes down. It is a good bird for the game preserve, where it can be propagated, protected from its enemies, and fed in winter. Otherwise, it is not likely to succeed in all parts of the United States.

IMPORTANT · AMERICAN · GAME · BIRDS

Those who enjoy chasing elusive, running birds may have good sport with the pheasants, as they are hard to kill. Their length of tail deceives the novice so that in cross shots he shoots too far behind. Both young and old will sometimes lie very close, but as a rule they run like hares.

Columba fasciata fasciata BAND-TAILED PIGEON

The band-tailed pigeon fills a place in the Rocky Mountain and Pacific Coast regions similar to that formerly held by the passenger pigeon in the Eastern States. It is known there by the name of "wild pigeon," as the passenger pigeon was commonly known in the eastern United States.

It occupies the transition zone from southwestern British Columbia, western Washington, western Oregon, northern Utah and north central Colorado, south through the southwestern United States and Mexico to Nicaragua and east to western Texas. It winters from the southwestern United States southward.

This bird was made known to science by Long's expedition to the Rocky Mountains and described by Say in 1823. Then its flights on the Pacific Slope approached in numbers the hosts of the passenger pigeon. It migrated in hordes and continued to flock even during the nesting season. In fall, winter and spring it swept in vast numbers from forest to forest, feeding on wild berries, acorns and buds. Probably the entire pigeon population of the Pacific coast region still concentrates in winter in west, central and northern California in large flocks. At this season acorns seem to be their chief food, and it is amazing how large an acorn a pigeon can swallow whole and still digest it. They also eat manzanita berries, coffee berries, wild cherries, cornel berries and other wild fruit. In the spring they take oak buds. The pigeon flies swiftly in a manner somewhat like that of the domestic dove and when much hunted it becomes wary. Sometimes, however, when perched among the foliage it seems to trust to the protection of the leaves as if regardless of the approaching sportsman.

The band-tailed pigeons formerly nested both on the ground and in trees in companies, but now they are scattered and nest mainly in trees, building so frail a nest that the eggs may be seen through it. Their flight is swift and much like that of the domestic pigeon. The quality of the flesh is good, and the pigeon has some merits as a game bird, but it has decreased so fast under inadequate State protection that the Biological Survey issued a regulation (1914) protecting it at all times under Federal law until September 1, 1918.

Zenaidura macroura carolinensis MOURNING DOVE

In most parts of the United States the breath of the May dawn brings to the ear the sad cooing of the mourning dove. Softly it calls—*ah-coo-roo-coo* or *ah coo roo coo roo*, but the touching plaintiveness of the strain belies the mood of the mourner, for his actions show the exact opposite of grief, as he is engaged in wooing with the liveliest endearments.

The mourning dove ranges over most of North America, but is not found in Arctic regions. It breeds from British Columbia, Saskatchewan, Manitoba, Ontario and Nova Scotia south through the United States and Mexico, and locally in Lower California and Guatemala. It winters from southern Oregon, southern Colorado, the Ohio Valley and North Carolina south to Panama. A few individuals appear at times in winter north of its regular winter range.



MOURNING DOVE

The nest of this bird is placed according to circumstances, on the ground, on an island in a swamp, or on a fence, stump or tree. The frail, twig-built nest and its two glossy white eggs are familiar to farmers' boys all over the land. The dove when startled from the ground makes a whistling sound with its wings, but it can utter a similar note when perched in a tree with wings closed. During the settlement of the country, doves were found in great numbers from the Atlantic to the Pacific, but they never massed in mighty flocks like those of the passenger pigeon, although the bands sometimes numbered many hundreds. Since the pigeon became extinct this species has, in a measure, taken its place, though the boundaries of its range are different. Often, therefore, in the north it is called the wild pigeon, and is the bird referred to in the tales of "The Return of the Wild Pigeon" recently printed. It resembles the pigeon closely in shape, but is smaller, browner, and has a small dark spot on each side of the head where it joins the neck.

Where doves are abundant the hunter usually finds some stubble field where they come for scattered grain and weed seeds, and there sits down toward evening and waits for them to come to him, or he stations himself where they come to drink. They fly swiftly and when shot at they soon become wary. As one passes like a flickering flash through the open "piney woods" of the south, or shoots rapidly through a "birch pasture" in the north it is no "easy mark."

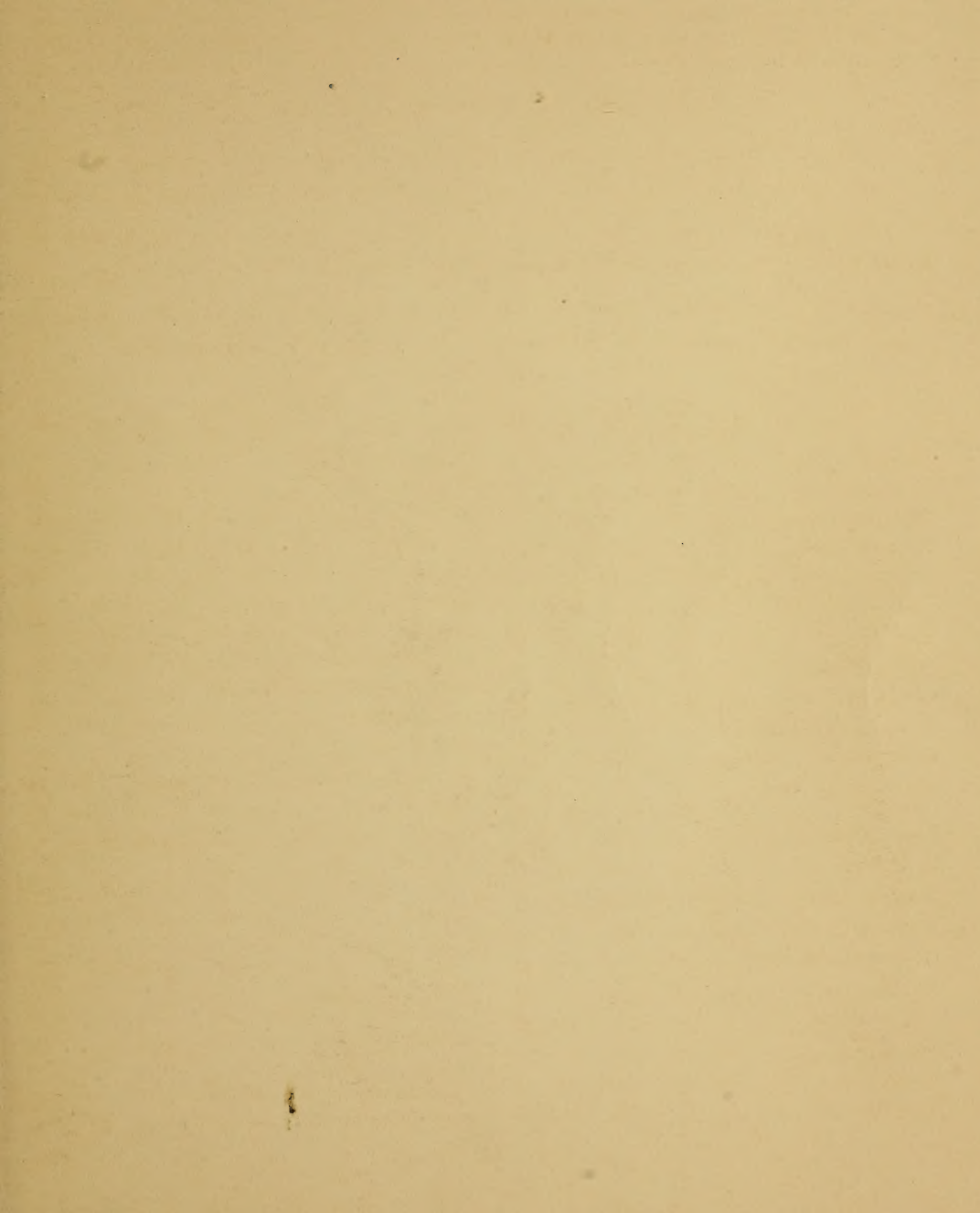
SUGGESTED HUNTING LOADS

The loads here tabulated are for 12-gauge guns, and are necessarily general. Allowances cannot be made for individualities in guns or shooters in the space available.

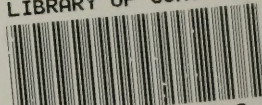
The powder charge given will be found sufficient when properly loaded to throw the size of shot mentioned *through* the birds at practical gunshot ranges.

Where there is more than one size shot given, allowance has been made for change during open season or differences in the manner of hunting the birds.

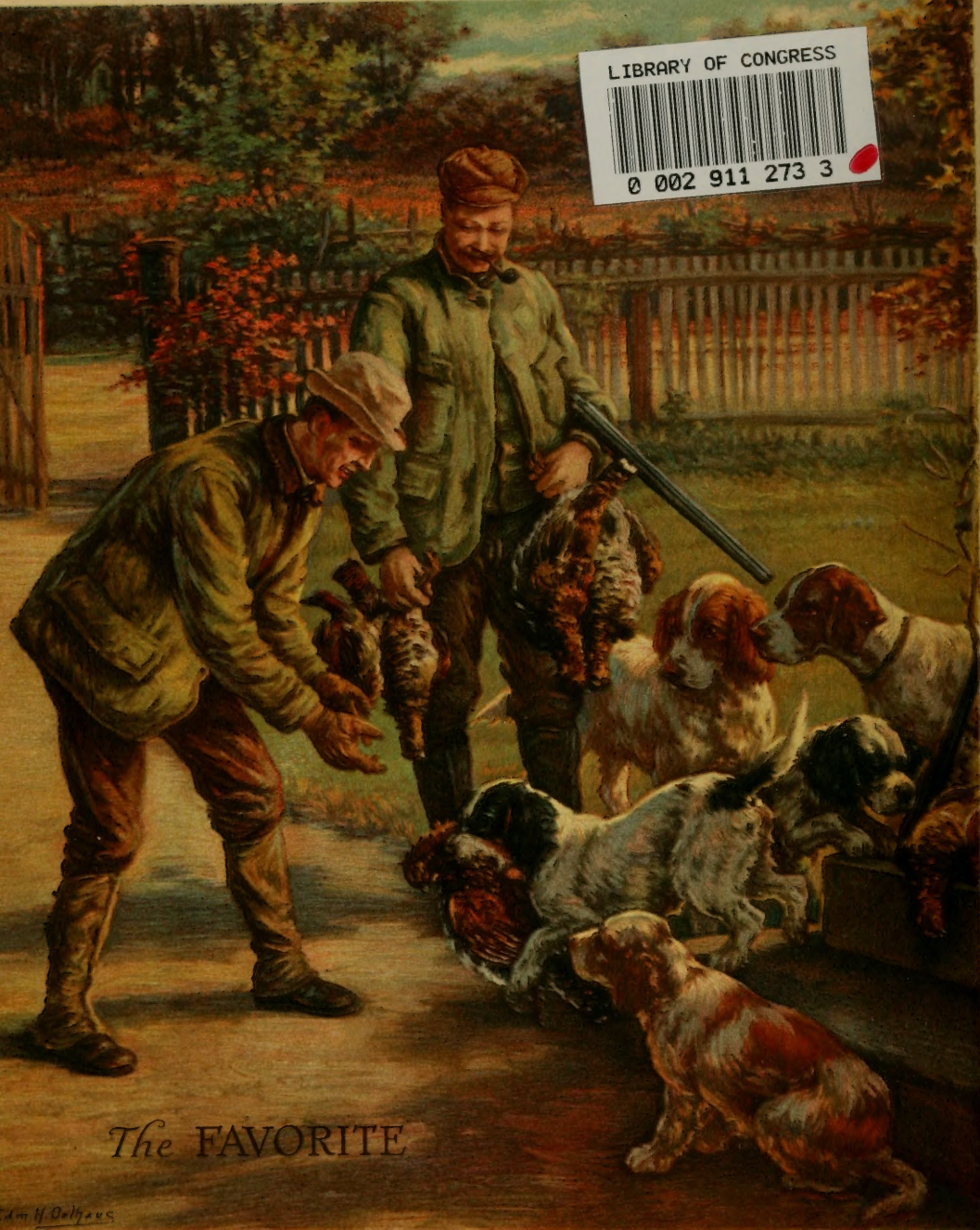
	DU PONT	BALLIS- TITE	SHOT	SIZE	PAGE		DU PONT	BALLIS- TITE	SHOT	SIZE	PAGE
	Drams	Grains	Chilled	No.			Drams	Grains	Chilled	No.	
Mallard . . .	3 ½	28	1 ½ oz.	6	6	Virginia Rail . . .	3	24	1 oz.	9	30
Black Duck . . .	3 ½	28	1 ½ oz.	6	6	Sora Rail . . .	3	24	1 oz.	9	31
Bald-pate or Widgeon	3 ¼	26	1 ½ oz.	7	10	Coot . . .	3 ¼	26	1 ½ oz.	7	33
Pintail, or Sprig . . .	3 ¼	26	1 ½ oz.	6-7	14	Broad-Bill . . .	3 ¼	26	1 ½ oz.	6-7	20
Blue-winged Teal . . .	3 ¼	26	1 ½ oz.	7	12	Canvas-Back . . .	3 ½	28	1 ½ oz.	6	18
Green-winged Teal . . .	3 ¼	26	1 ½ oz.	7	10	Redhead . . .	3 ½	28	1 ½ oz.	6	16
Wood Duck . . .	3 ¼	26	1 ½ oz.	7	16	Canada Goose . . .	3 ½	28	1 ½ oz.	4	26
Wilson's Snipe . . .	3 ½	25	1 ½ oz.	8-9	35	Greater Snow Goose	3 ½	28	1 ½ oz.	6	24
Greater Yellow-legs	3 ¼	26	1 ½ oz.	7	37	White-Fronted Goose	3 ½	28	1 ½ oz.	6	24
Black-bellied Plover	3 ½	25	1 ½ oz.	8	41	Sharp-Tailed Grouse	3 ¼	26	1 ½ oz.	7-6	51
Golden Plover . . .	3 ½	25	1 ½ oz.	8	41	Wild Turkey . . .	3 ½	26	1 ½ oz.	4	52
Hudsonian or Jack Curlew . . .	3 ¼	26	1 ½ oz.	7	39	Ring-necked Pheasant	3 ¼	26	1 ½ oz.	7-6	53
Upland Plover . . .	3 ½	25	1 ½ oz.	8	39	Black Brant . . .	3 ½	28	1 ½ oz.	2 to 6	27
Bob-White . . .	3	24	1 oz.	8-9	43	Common Brant . . .	3 ½	28	1 ½ oz.	6	27
California Quail . . .	3 ½	25	1 ½ oz.	8	45	Shoveller or Spoon- bill . . .	3 ¼	26	1 ½ oz.	7	12
Mountain Quail . . .	3 ½	25	1 ½ oz.	7 ½	45	Gadwall . . .	3 ¼	26	1 ½ oz.	6-7	8
Dusky or Blue Grouse	3 ¼	26	1 ½ oz.	7-6	47	Golden-eye or Whistler . . .	3 ¼	26	1 ½ oz.	7	20
Ruffed Grouse . . .	3 ¼	26	1 ½ oz.	7	47	White-winged Scoter or Coot . . .	3 ½	28	1 ½ oz.	6	22
Prairie Chicken . . .	3 ¼	26	1 ½ oz.	7-6	50	Mourning Dove . . .	3 ½	25	1 ½ oz.	8	54
Woodcock . . .	3 ½	25	1 ½ oz.	8	33	White-tailed Ptarmi- gan or Snow Grouse	3 ¼	26	1 ½ oz.	7-6	49
Clapper Rail . . .	3 ½	25	1 ½ oz.	7 ½	30	Band-Tailed Pigeon	3 ¼	26	1 ½ oz.	7	54
King Rail . . .	3 ½	25	1 ½ oz.	7 ½	30						



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